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UNITED STATES DEPARTMENT OF AGRICULTURE  
BUREAU OF AGRICULTURAL ENGINEERING  
DIVISION OF PLANS AND SERVICE

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LIST OF PLANS PREPARED FOR FREE DISTRIBUTION  
(Unless otherwise noted all barns are frame)

Serial  
Numbers

DAIRY BARN

495. DAIRY BARN 18 by 30 ft. Bill of Materials  
2 stories; 4 cow stalls; calf pen for 3 calves; storage on  
ground floor for about 2 T hay; stair to mow; mow capacity  
5 T; gable roof, concrete foundations.
- 590 DAIRY BARN 36 by 63 ft. Bill of Materials  
1 story; 30 cows facing 8 ft. central feed alley; post and  
girder construction with boarding on inside and no exterior  
siding; gable roof; concrete pier foundation with curtain  
wall and concrete floor. Adapted to temperate climates.
- 687 DAIRY BARN 36 by 70 ft.  
2 stories; 30 cows facing 8 ft. central feed alley; feed  
room; box stall mow capacity 75 T.; grain room and 2 bins,  
48 bu. each in mow; gambrel roof; concrete foundations  
and floor. Adapted to cold climates.
- 755 DAIRY BARN 36 by 71 ft. Bill of Materials  
2 stories; 20 cows facing 8 ft. center driveway; calf pen;  
box stall; feed room; mow capacity 75 T; grain room with 3  
bins, 36 bu. each on mow floor; gambrel roof with trussed rafters;  
concrete foundation and floor; adapted to cold climates
- 774 DAIRY BARN Bill of Materials  
Same as Design No. 755 but of bent construction with roof  
trusses spaced 14 ft. center to center.
- 793 DAIRY BARN 34 by 45 ft.  
1 story; 20 cows facing out; 6 ft. center driveway; hollow  
tile stuccoed walls; gable roof. Designed for use with feed  
barn.
- 839 DAIRY BARN Bill of Materials  
Typical 1 story design, 34 ft. wide, adapted to 8 different  
floor plans; concrete foundations and floors with 8 ft. cen-  
ter drive or 6 ft. feed alley; gable roof. Designed for use  
with feed barn. Drawings provide for barns of following sizes:  
34'x45' - 20 cows facing out; 34'x84' - 40 cows facing out.  
34'x45' - 20 " " in; 34'x84' - 40 " " in.  
34'x62' - 30 cows " out; 34'x105' - 52 " " out.  
34'x62' - 30 " " in; 34'x105' - 52 " " in.
- 1079 DAIRY BARN 16 by 20 ft. Bill of Materials.  
1 story; 1 cow in open stall; hay storage for 3 T; 6 bu.  
grain bin. Adapted to temperate climates.



Serial  
Numbers

DAIRY BARNS (Cont'd)

- 1155-6 DAIRY BARN 34 by 70 ft. Bill of Materials  
1 story; 20 cows in one end; grain room and hay storage space in  
other end; hay storage capacity 25 tons loose hay; gable roof,  
concrete foundations, sides covered with boards and battens.

HORSE BARNS

- 453 HORSE BARN 30 ft. by 32 ft. Bill of Materials  
1 1/2 stories; 7 single and 1 box stalls; feed room; harness room;  
center drive; mow capacity 14 tons; gable roof; concrete foundations,  
ventilation and light through slatted openings; no frames or sash.  
Adapted to warm climates only.
- 631-2 HORSE BARN 34 ft. by 42 ft. Bill of Materials  
2 stories; 3 single, 4 double, 1 box stall; harness room; grain  
bin 450 bu.; corn crib 500 bu. ear corn; mow capacity 50 tons;  
4 ft. central feed alley; gambrel roof; concrete foundations and  
wall to window sills.  
Alternate ground floor plan provides for:-  
2 single, 3 double and 1 box stall; 2 grain bins 800 bu. each;  
space for buggies; 4 ft. central feed alley.
- 1204-5-6 HORSE BARN 36 ft. 76 or 64 ft. Bill of Materials  
2 stories; 20 single stalls face out; 2 box stalls; 2 feed bins  
about 500 bu. each; tool and harness room; stair to mow; 10 ft.  
central driveway; mow capacity 100 tons loose hay; gambrel roof;  
concrete foundations. Ventilation through slatted louvers in sides.  
(No windows at rear of stalls)  
Two alternate floor plans:-  
First has same accommodations as principal floor plan but arrange-  
ment of stalls is different. Second provides for 20 single stalls  
and 1 box stall; tool and harness room; stair to mow; mow capacity  
85 tons loose hay. 36 ft. by 64 ft. Adapted to temperate climates.

GENERAL BARNS

- 454-5-6 GENERAL BARN 34 ft. by 96 ft.  
7-8 2 stories; horse stable with 8 single stalls; bull pen; 2 cow pens;  
1 pen for 5 calves; harness cabinet and feed room; Cow stable with  
20 stanchions facing 6 ft. central feed alley; mow with capacity  
of 150 tons and 2 grain bins 70 bu. each. Gambrel roof; concrete  
foundations. 13 ft. by 60 ft. open feeding shed attached. Manure  
pit and spreader shelter under shed roof.



Serial  
Numbers

GENERAL BARN

- 612-13 GENERAL BARN 56 by 64 ft. Bill of Materials  
4 double horse stalls; 1 box stall; 5 cow stanchions facing in; pens for 65 sheep; 4 grain bins 300 bu. each; crib for 300 bu. ear corn; mow extends from ground to ridge with 58 tons capacity; gambrel roof 26 ft. span with 15 ft. shed on each side. Concrete foundations; board and batten exterior.
- 621-2-3-4 GENERAL BARN 36 by 91 ft. Bill of Materials  
2 stories; basement provides for 3 single and 1 double horse stalls; 2 box stalls; pen for 7 calves; 27 cow stanchions; 8 ft. center driveway; water trough; harness room; horse stair; feed room.  
Concrete bridge to 2nd floor. Second floor contains grain storage space and 3 grain bins 136 bu. each; drive and vehicle storage space; mow with 70 tons capacity. Gable roof; concrete floor and basement walls to window sills. Adapted to cold climates.
- 723-4 GENERAL BARN 32 ft. by 36 ft. Bill of Materials  
2 stories; horse stable with 4 single and 1 box stalls; cow stable with 4 stanchions facing in; 2 grain bins, 400 bu. each; mow capacity 25 tons; gambrel roof; concrete foundations and floor.
- 845-6-7- GENERAL BARN 36 by 56 ft.  
8-9 2 stories; 6 single horse stalls; 2 box stalls; pen for 10 calves; harness room; feed room; water trough; mow with 70 tons capacity; grain room on mow floor with 3, 30-bu. bins. Hollow tile construction; gable ends framed & stuccoed; gambrel roof.
- 918-19- GENERAL BARN 60 by 80 ft.  
20 4 double and 1 single horse stalls; 2 box stalls; calf pen; cow stable with 6 stanchions; shed for 40 head loose cattle; mow from ground to ridge with 100 tons capacity; storage room for 1000 bu. ear corn; feed storage & bins. Gambrel roof; concrete foundations.
- 1267-8- GENERAL BARN 36 by 60 ft. Bill of Materials  
9-70 2 stories; 16 cow stalls facing central feed alley; 3 box stalls across one end of barn; feed room; stair to mow; mow capacity 80 tons loose hay; gambrel roof; concrete foundations. Ventilation flues suggested. Alternate plan, provides one less box stall & central feed alley extends full length of barn. Adapted to cold climates.
- 1330-1-2 GENERAL BARN 36 by 56 ft.  
2 stories; 4 single & 4 double horse stalls; 2 box stalls; feed & harness rooms; 2 corn cribs; 6 ft. cleaning alley each side & 6 ft. central feed alley. Lean-to 20 by 36 ft. attached for 10-16 head loose stock. Mow capacity 100 tons loose hay. Gambrel roof; concrete foundations. Ventilation system indicated.



Serial  
Numbers

SHEEP BARNS

Barn List

567 SHEEP BARN Bill of Materials  
165 sheep; buck pen; shepherd's room; scales platform; main building 36 by 56 ft.; 2 stories with mow of 55 tons capacity; feed room with 3 bins on mow floor; gambrel roof; 1 story extension 36 by 42 ft.; gable roof; concrete foundations.

1148 SHEEP BARN 16 by 48 ft. Bill of Materials  
2 stories; 50 to 60 loose sheep; feed rack in center; mow capacity 14 tons loose hay. Self supporting frame on concrete piers; gable roof. Sides covered with boards & battens.

CATTLE BARNS

1175 CATTLE BARN (closed type) 36 by 72 ft. Bill of Materials  
2 stories; 48 to 68 head loose cattle; concrete paved central feed alley with feed troughs and hay racks on each side; mow capacity 100 tons loose hay; gambrel roof; concrete foundations. Adapted to cold climates. (Feed room 20 by 20 ft. shown connected to two 14 ft. diameter silos).

1185 CATTLE BARN (open type) 36 by 72 ft. Bill of Materials  
2 stories; 48 to 68 head loose cattle; concrete paved central feed alley with feed troughs and hay racks on each side; mow capacity 100 tons loose hay. Gambrel roof; concrete piers; ground floor open; mow sides covered with boards & battens. Adapted to temperate climates. (Feed room 20 by 20 ft. shown connected to two 14 ft. diameter silos).

SPECIAL PEN BARNS

596 BULL AND CALF BARN 36 by 56 ft. Bill of Materials  
1 1/2 stories; pens for 30 calves; 4 maternity pens; 1 bull pen; 8 ft. central driveway; mow for 20 T of hay; gambrel roof; post and girder construction covered with boards and battens; concrete pier foundation with curtain wall; earth floor. Adapted to temperate climates.

929 CALF BARN Bill of Materials  
Center building 2 stories, 24 by 32 ft.; bedding, feed and wash rooms; scale platform; mow capacity 15 T; two 1 story wings 22 by 52 ft. accommodating 55 calves total; gable roof.



SPECIAL PEN BARN (Cont'd)Serial  
Numbers

- 932-3-4 FEEDING BARN 36 ft. by 98 ft.  
-5 2 stories; 10 box stalls; 1 bull pen; calf pen for 15 head; young stock pen for 7 head; feed room; closet; mow capacity 150 tons; feed room with 4 bins on mow floor. Gambrel roof; concrete foundations.
- 936-7 BULL BARN 12 ft. by 18 ft. Bill of Materials.  
1 story; bull pen; feed alley; 2 grain bins, 12 bu. each; gable roof; concrete foundation and floor; iron stanchion and rail. Adapted to temperate climates.
- 945-6 BULL BARN  
Same as Design No. 936-7 but construction adapted to cold climates.
- 1140-41 BULL BARN 12 ft. by 18 ft. Bill of Materials.  
Similar to Design No. 936-7; concrete pier foundation; dirt floor; board and batten exterior; wood stanchion and rail. Adapted to temperate climates.

CATTLE SHEDS

- 761-2 FEEDING SHED 20 ft. by 60 ft. Bill of Materials.  
30 head young stock; 1 bull; 3 ft. feed alley; open front.
- 763 CATTLE SHED 20 by 68 ft. with 20 by 24 ft. ell Bill of Materials.  
50 head loose cattle; ell shaped open front; gable roof; concrete foundations.

SHEEP SHEDS

- 565 SHEEP SHED 16 ft. by 24 ft. Bill of Materials.  
25 sheep; shed roof; open front; concrete pier foundations; board and batten exterior.
- 566 SHEEP SHED 16 ft. by 24 ft. Bill of Materials.  
25 sheep; gable roof; enclosed; concrete pier foundations; board and batten exterior.

HAY SHED

- 500 HAY SHED Bill of Materials.  
To be built in 16 ft. sections or bays 28 ft. wide, capacity 20 tons loose hay per section. Trussed framing on concrete piers. Lower half open; upper half closed with boards and battens; gable roof.



Serial  
NumbersFEED BARN

- 546-7 FEED OR HAY BARN 36 by 60 ft. Bill of Materials  
Two hay bays 24'x 36' each; 12' center drive. Post and  
plate framing; concrete piers; gable roof; board and batten  
exterior; capacity 50 tons.
- 656 FEED BARN  
Two stories; to be built in 14' sections or bays 32' wide  
with hay capacity of 16 tons per section. Gambrel roof; 9'  
center drive, concrete foundations. Drawings show only  
framing for end and intermediate bay.

EXHIBITION STRUCTURES

- 1438-9-  
40 CATTLE SHOW BARN 60 by 112 ft. Bill of Materials  
Frame construction, monitor roof; trusses; dirt floor;  
space for 80 tie stalls.
- 1441-2-3  
-4-5 JUDGING & SALES PAVILION 80 by 98 ft. Bill of Materials  
Frame construction, flat roof, trussed, selling ring, grand  
stand seating capacity 800-1000, cleaning & toilet rooms.

MISCELLANEOUS

- 655 STANDARD HORSE STALL DETAILS Bill of Materials  
Shows construction of, concrete, planks overlay, & block  
floors, details of partitions & mangers & dimensions of  
single & double stalls.
- 1095 MANURE PIT 16 by 20 ft. Bill of Materials  
Concrete with gable roof on posts; roof projects to make  
shelter for spreader; cistern for collecting liquid.
- 1142 BREEDING RACK 14 by 9 ft. Bill of Materials on Plan  
Frame, adjustable; designed for cattle.
- 1173 FEED TROUGH 5 by 14 ft. Bill of Materials on Plan  
Box trough on skids; for cattle or horses.
- 1232 Sheep Feeding Rack Bill of Materials on Plan  
For use in barn, 2'6" wide may be built as long as desired.  
Tight troughs.
- 1416 STANDARD COW STALL DETAILS  
Shows dimensions of stalls for various sized cows, details of  
4 types of mangers and two types of gutters. Details for  
building concrete & cork brick floors.
- 1611 COW STANDHIONS  
Homemade, of wood showing method of attaching to post and  
girder supports.
- 1613 HAY FEED RACK 4 by 12 ft. 4 in. Bill of Materials on Plan  
Portable on skids, solid bottom & trough, 1"x4" slats  
2'10" above trough.



Serial  
Numbers

- 1616     HAY FEED RACK                      7 by 28 ft. 10 in.                      Bill of Materials  
         For cattle; shown built on concrete posts, solid board  
         bottom and trough, 2 x 4 slats, height 7 ft. 10 in. above trough.
- 1627     DEHORNING CHUTE                      3 1/2 by 8 ft.                      Bill of Materials  
         Stationary crate.
- 1855     DIPPING VAT FOR CATTLE & HORSES  
         Concrete pit showing arrangement of cutting gates and  
         draining pens.
- 2192     SELF FEEDER FOR CATTLE                      6 by 14 ft.                      Bill of Materials  
         On skids for pasture use; capacity 8 tons grain trough  
         space for 12 head.
- 2197     DEHORNING CHUTE AND SQUEEZE GATE
- 2198     CATTLE SHED.                      20 by 60 ft.  
         Closed on three sides with vertical boards and battens,  
         concrete foundation; length can be increased by building 12  
         foot bays.
- 2199     HAY FEED RACK FOR CATTLE                      5 by 16 ft.  
         On skids, tight box to catch loose hay that falls from  
         slatted rack.

